CLAIMS

What is claimed is:

1. A method for treating or reducing the advancement, severity or effects of an immunological disease in an animal comprising the step of administering a pharmaceutical composition which comprises a therapeutically effective amount of a LT-ß-R blocking agent and a pharmaceutically acceptable carrier.

2. The method according to claim 1, wherein the LT-ß-R blocking agent is selected from the group consisting of a soluble lymphotoxin-ß receptor, an antibody directed against LT-ß receptor, and an antibody directed against surface LT ligand.

3. The method according to claim 2, wherein the animal is a mammal.

4. The method according to claim 3, wherein the mammal is a human.

5. The method according to claim 1, wherein the LT-ß-R blocking agent comprises a soluble lymphotoxin-ß receptor having a ligand binding domain that can selectively bind to a surface LT ligand.

6. The method according to claim 5, wherein the soluble lymphotoxin-ß receptor further comprises a human immunoglobulin Fc domain.

7. The method according to claim 1, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against LT-ß receptor.

8. The method according to claim 7, wherein the composition is administered in an amount sufficient to coat LT-ß receptor-positive cells for 1 to 14 days.

9. The method according to claim 4, wherein the LT-ß-R blocking agent comprises anti-human LT-ß-R mAb BDA8.

10. The method according to claim 1, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against surface LT ligand.

11. The method according to claim 10, wherein the composition is administered in an amount sufficient to coat surface LT ligand-positive cells for 1 to 14 days.

12. The method according to claim 10, wherein the antibody is directed against a subunit of the LT ligand.

13. The method according to claim 4, wherein the LT-ß-R blocking agent comprises anti-human LT-ß mAb B9.

14. The method according to claim 3, wherein the mammal is a mouse and the LT-ß-R blocking agent comprises a monoclonal antibody directed against a murine surface LT ligand.

15. A method for inhibiting a Th1 cell-mediated immune response in an animal comprising the step of administering a pharmaceutical composition which comprises an effective amount of a LT-ß-R blocking agent and a pharmaceutically effective carrier.

16. The method according to claim 15, wherein the LT-ß-R blocking agent is selected from the group consisting of a soluble lymphotoxin-ß receptor, an antibody directed against LT-ß receptor, and an antibody directed against surface LT ligand.

17. The method according to claim 16, wherein the animal is a mammal.

18. The method according to claim 17, wherein the mammal is a human.

19. The method according to claim 15, wherein the LT-ß-R blocking agent comprises a soluble lymphotoxin-ß receptor having a ligand binding domain that can selectively bind to a surface LT ligand.

20. The method according to claim 19, wherein the soluble lymphotoxin-ß receptor further comprises a human immunoglobulin Fc domain.

21. The method according to claim 15, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against LT-ß receptor.

22. The method according to claim 21, wherein the composition is administered in an amount sufficient to coat LT-ß receptor-positive cells for 1 to 14 days.

23. The method according to claim 18, wherein the LT-ß-R blocking agent comprises anti-human LT-ß-R mAb BDA8.

24. The method according to claim 15, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against surface LT ligand.

25. The method according to claim 24, wherein the composition is administered in an amount sufficient to coat surface LT ligand-positive cells for 1 to 14 days.

26. The method according to claim 24, wherein the antibody is directed against a subunit of the LT ligand.

27. The method according to claim 18, wherein the LT-ß-R blocking agent comprises anti-human LT-ß mAb B9.

28. The method according to claim 17, wherein the mammal is a mouse and the LT-ß-R blocking agent comprises a monoclonal antibody directed against a murine surface LT ligand.

29. The method according to claim 15, wherein the Th1 cell-mediated immune response contributes to a delayed type hypersensitivity reaction.

30. The method according to claim 29, wherein the delayed type hypersensitivity reaction is contact hypersensitivity.

31. The method according to claim 29, wherein the delayed type hypersensitivity reaction is tuberculin-type hypersensitivity.

32. The method according to claim 29, wherein the delayed type hypersensitivity reaction is a granulomatous reaction.

33. The method according to claim 15, wherein the Th1 cell-mediated immune response contributes to cellular rejection of tissue in the animal after the animal receives a tissue graft.

34. The method according to claim 15, wherein the Th1 cell-mediated immune response contributes to organ rejection in the animal after the animal receives an organ transplant.

35. The method according to claim 15, wherein the Th1 cell-mediated immune response contributes to an autoimmune disorder in the animal.

36. The method according to claim 35, wherein the autoimmune disorder is selected from the group consisting of multiple sclerosis, insulin-dependent diabetes, sympathetic ophthalmia, uveitis and psoriasis.

37. The method according to claim 15, wherein the Th1 cell-mediated immune response is inhibited without inhibiting a Th2 cell-dependent immune response.

38. A pharmaceutical composition comprising a therapeutically effective amount of a LT-ß-R blocking agent and a pharmaceutically acceptable carrier.

39. The composition according to claim 38, wherein the LT-ß-R blocking agent is selected from the group consisting of a soluble lymphotoxin-ß receptor, an antibody directed against LT-ß receptor, and an antibody directed against surface LT ligand.

40. The composition according to claim 38, wherein the soluble lymphotoxin-ß receptor comprises a LT-ß-R ligand binding domain that can selectively bind to a surface LT ligand.

41. The composition according to claim 40, wherein the soluble lymphotoxin-ß receptor further comprises a human immunoglobulin Fc domain.

42. The composition according to claim 38, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against LT-ß receptor.

43. The composition according to claim 42, wherein the monoclonal antibody is anti-human LT-ß-R mAb BDA8.

44. The composition according to claim 38, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against surface LT ligand.

45. The composition according to claim 44, wherein the antibody is directed against a subunit of the LT ligand.

46. The composition according to claim 45, wherein the monoclonal antibody is anti-human LT-ß mAb B9.

47. The composition according to claim 38, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against a murine surface LT ligand.

48. The composition according to claim 42, wherein the antibody is present in an amount sufficient to coat LT-ß receptor-positive cells for 1 to 14 days.

49. The composition according to claim 44, wherein the antibody is present in an amount sufficient to coat surface LT ligand-positive cells for 1 to 14 days.

50. A method for selecting a LT-ß-R blocking agent comprising the steps of:

a) culturing tumor cells in the presence of an effective amount of at least one LT-ß-R activating agent and a putative LT-ß-R blocking agent; and

b) determining whether the putative LT-ß-R blocking agent decreases the anti-tumor activity of the LT-ß-R activating agent.

51. The method according to claim 50, wherein the LT-ß-R activating agent comprises a LT-α/ß heteromeric complex.

52. The method according to claim 51, wherein the LT-α/ß heteromeric complex has a LT-α1/ß2 stoichiometry.

53. The method according to claim 50, wherein the LT-ß-R activating agent comprises an anti-LT-ß-R antibody that stimulates LT-ß-R signalling.

54. A method for inhibiting LT-ß-R signalling without inhibiting TNF-R signalling comprising the step of administering to a subject an effective amount of a LT-ß-R blocking agent.

55. The method according to claim 54, wherein the LT-ß-R blocking agent is selected from the group consisting of a soluble lymphotoxin-ß receptor, an antibody directed against LT-ß receptor, and an antibody directed against surface LT ligand.

56. The method according to claim 54, wherein the subject comprises one or more cells from a mammal.

57. The method according to claim 56, wherein the mammal is a human.

58. The method according to claim 54, wherein the LT-ß-R blocking agent comprises a soluble lymphotoxin-ß receptor having a ligand binding domain that can selectively bind to a surface LT ligand.

59. The method according to claim 58, wherein the soluble lymphotoxin-ß receptor further comprises a human immunoglobulin Fc domain.

60. The method according to claim 54, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against LT-ß receptor.

61. The method according to claim 57, wherein the LT-ß-R blocking agent comprises anti-human LT-ß-R mAb BDA8.

62. The method according to claim 54, wherein the LT-ß-R blocking agent comprises a monoclonal antibody directed against surface LT ligand.

63. The method according to claim 62, wherein the antibody is directed against a subunit of the LT ligand.

64. The method according to claim 57, wherein the LT-ß-R blocking agent comprises anti-human LT-ß mAb B9.

65. The method according to claim 56, wherein the mammal is a mouse and the LT-ß-R blocking agent comprises a monoclonal antibody directed against a murine surface LT ligand.

66. The method according to claims 60, wherein the LT-ß-R blocking agent is administered in an amount sufficient to coat LT-ß receptor-positive cells for 1 to 14 days.

67. The method according to claims 62, wherein the LT-ß-R blocking agent is administered in an amount sufficient to coat surface LT ligand-positive cells for 1 to 14 days.

68. A method of treating inflammatory bowel syndrome comprising administering a therapeutically effective amount of an LT-β-R fusion protein.

69. The method of claim 68 wherein the fusion protein is LT-β-R a fusion of and an immunoglobulin Fc domain.